
Subject: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [humanumbrella](#) on Thu, 17 Jul 2008 15:41:35 GMT
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Hi,

So, I'm trying to make a spherical surface plot with the fsc_surface class from Dr. Fanning. (:
Fun!

Anyways, I have two arrays, one of latitudes and one of longitudes -- then I have a data array which is lat x long 2D with datapoints. Here's what I want to do, but have yet to be successful -- and I came here to look for some tips. :)

Here is what I've tried: so, the surface plotter uses an index notation for plotting of the datapoints. However, when converting to spherical data, there will be lat*long x and y values, instead of lat +long, ie there will no longer be only one lat for all longs, they will all be different.

I'm using R as the data value that is in the dataset at [lat,long]

So, I'm creating a 2D array that is 2, lat*long

```
values[0, *] = sin(lat[i])*cos(long[i])*r ; X's  
values[1, *] = sin(lat[i])*sin(long[i])*r ; Y's
```

then I have datapoints = lat*long

so now, I have the x's and y's I need, but I need to plot them as a surface.

it will be,

plot

datapoints[0] at x[0]y[0]

...

datapoints[n] at x[n]y[n] where n = lat*long

Should I try to go about using volume for this spherical surface plot ?

Thanks for any suggestions!

Cheers,

--Justin

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [David Fanning](#) on Fri, 18 Jul 2008 14:19:39 GMT
[View Forum Message](#) <> [Reply to Message](#)

Andrew Cool writes:

- > Here's an adaption of some code that I think originally came from
- > someone inside RSI long ago - I forget just who it was.

Jim Pendleton, no doubt. You can really see that pimento effect if you looks though the Himalayas. Why do you suppose that is happening?

Cheers,

David

P.S. What time *is* it in Australia, Andrew. I don't usually talk to you at 7:00 AM, Colorado time!

--

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: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [pook41](#) on Fri, 18 Jul 2008 23:21:24 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 18, 11:19 pm, David Fanning <n...@dfanning.com> wrote:

- > Andrew Cool writes:
- >> Here's an adaption of some code that I think originally came from
- >> someone inside RSI long ago - I forget just who it was.
- >
- > Jim Pendleton, no doubt.

No, I think it was one of the many RSI guys with the initials AC, one of the Adam's maybe.

- > You can really see that pimento effect if you looks though the Himalayas. Why do you suppose
- > that is happening?

You've had one too many? I see no defects at all, even the poles are solidly closed.

Leave the pimento alone - it must be rotten after so many years.

>
> P.S. What time *is* it in Australia, Andrew. I don't usually
> talk to you at 7:00 AM, Colorado time!

Umm, that was pushing midnight. I've been reworking the code for that sports team photo I sent you.

Cheers,

Andrew

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [David Fanning](#) on Fri, 18 Jul 2008 23:39:14 GMT
[View Forum Message](#) <> [Reply to Message](#)

Andrew_Cool writes:

> You've had one too many? I see no defects at all, even the poles are
> solidly closed.
>
> Leave the pimento alone - it must be rotten after so many years.

Yeah, it wasn't the pimento, but there definitely is some near-plane clipping going on with my machine. I can see a small clipped hole on most of the image, but it becomes especially apparent, and large enough to look through to the other side of the earth, when I look at the Himalayan region. They sort of just disappear when I rotate them into the center of the view.

> Umm, that was pushing midnight. I've been reworking the code for that
> sports team photo I sent you.

Don't get your hopes up too high. My brother just had to close his photography business because of people like you. ;-)

Cheers,

David

--

David Fanning, Ph.D.
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Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [Andrew Cool](#) on Sat, 19 Jul 2008 03:04:22 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 19, 8:39 am, David Fanning <n...@dfanning.com> wrote:

> Andrew_Cool writes:

>> You've had one too many? I see no defects at all, even the poles are
>> solidly closed.

>

>> Leave the pimento alone - it must be rotten after so many years.

>

> Yeah, it wasn't the pimento, but there definitely is some
> near-plane clipping going on with my machine. I can see a
> small clipped hole on most of the image, but it becomes
> especially apparent, and large enough to look through to
> the other side of the earth, when I look at the Himalayan
> region. They sort of just disappear when I rotate them
> into the center of the view.

I've just checked again. Enlarged the XObjView window to desktop height, and rotated the globe every which way. Zoomed in, zoomed out, I don't see any gaps/artefacts anywhere.

And that's with either Hardware or Software selected in Prefs.

OK, the poles look a little like puckered up arseholes, but they're tight little arseholes with no room for leakage... ;-)

I'm running this under Windows, IDL v6.4. with an NVidia 8800GTS card.

How about emailing me a screen dump of your Holey Himalayas?

Is this a graphics card/OPENGL issue? Time for you to update that P3 800Mhz PC with the TNT Riva 16MB card?

> Don't get your hopes up too high. My brother just had to close
> his photography business because of people like you. ;-)

Ah, having paid out thousands to send my kid to an interstate sporting competition, along come people like your brother who charge like wounded bulls for stock standard team photos. No bloody wonder he's gone broke without a captive market anymore... ;-)

Andrew

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [David Fanning](#) on Sat, 19 Jul 2008 03:36:07 GMT
[View Forum Message](#) <> [Reply to Message](#)

Andrew Cool writes:

> Is this a graphics card/OPENGL issue? Time for you to update that P3
> 800Mhz PC with the TNT Riva 16MB card?

I have the best graphics card I could install on my ancient computer without gutting the insides and installing a new air conditioner in there to keep the darn graphics card happy. NVIDIA GEFORCE 7600 GT. I guess there is a new driver for it, and I'm downloading it now, but I see the hole in both IDL 6.4 and IDL 7.0.3, with both hardware and software (always my default) rendering selected.

If the driver doesn't help, I'll send pictures. Not as cute as your soccer-playing daughter, but still...

Cheers,

David

--

David Fanning, Ph.D.

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

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

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [Andrew Cool](#) on Sat, 19 Jul 2008 06:19:56 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 19, 12:36 pm, David Fanning <n...@dfanning.com> wrote:

> Andrew Cool writes:

>> Is this a graphics card/OPENGL issue? Time for you to update that P3

>> 800Mhz PC with the TNT Riva 16MB card?

>

> I have the best graphics card I could install on my ancient

> computer without gutting the insides and installing a new

> air conditioner in there to keep the darn graphics card happy.

> NVIDIA GEFORCE 7600 GT. I guess there is a new driver for it,

> and I'm downloading it now, but I see the hole in both IDL 6.4 and

> IDL 7.0.3, with both hardware and software (always my default)
> rendering selected.
>
> If the driver doesn't help, I'll send pictures. Not as cute
> as your soccer-playing daughter, but still...
>
> 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.")

I'll show you mine if ...

<http://www.cool.id.au/IDL/exaggerated%20earth.jpg>

A.

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [Andrew Cool](#) on Sat, 19 Jul 2008 06:44:23 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 19, 3:19 pm, Andrew Cool <andrew.c...@dsto.defence.gov.au>
wrote:

> On Jul 19, 12:36 pm, David Fanning <n...@dfanning.com> wrote:
>
>
>
>> Andrew Cool writes:
>>> Is this a graphics card/OPENGL issue? Time for you to update that P3
>>> 800Mhz PC with the TNT Riva 16MB card?
>
>> I have the best graphics card I could install on my ancient
>> computer without gutting the insides and installing a new
>> air conditioner in there to keep the darn graphics card happy.
>> NVIDIA GEFORCE 7600 GT. I guess there is a new driver for it,
>> and I'm downloading it now, but I see the hole in both IDL 6.4 and
>> IDL 7.0.3, with both hardware and software (always my default)
>> rendering selected.
>
>> If the driver doesn't help, I'll send pictures. Not as cute
>> as your soccer-playing daughter, but still...
>

>> 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.")
>
> I'll show you mine if ...
>
> <http://www.cool.id.au/IDL/exaggerated%20earth.jpg>
>
> A.

David,

I've installed IDL 7.0 off the disk, and I **do** see your mysterious holes in the Himalayas and in the high plateaus of the Antarctic (not the South Pole, but the high mountains surrounding the pole.)

Now that I know what you're talking about, I continue to be puzzled that I **do not** see the same effect under IDL 6.4, but you do.

I have to find something better to do on a cold, wet Saturday arvo... ;-)

A.

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [rtowler](#) on Sat, 19 Jul 2008 22:43:10 GMT
[View Forum Message](#) <> [Reply to Message](#)

> Now that I know what you're talking about, I continue to be puzzled
> that I **do not** see the same effect under IDL 6.4,
> but you do.
>
> I have to find something better to do on a cold, wet Saturday
> arvo... ;-)

Hi David and Andrew,

This is remedied by removing or reducing the scale value passed to xobjview. Xobjview isn't calculating the zclip of the view correctly when scale is set so the most extreme z values are clipped. As to the

mystery if why it works in 6.4 but not 7? I don't have a copy of 6.4 with me and I can think of a million things I would rather do but If you're really hard up for entertainment you can do a diff on `idlexinscribingview__define.pro` and see if anything has changed.

-Rick

N 062 02.37
E 178 22.52

Subject: Re: Spherical Surface Plot w/ `fsc_surface` from David Fanning (:
Posted by [pook41](#) on Sun, 20 Jul 2008 01:07:08 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 20, 7:43 am, rtow...@gmail.com wrote:

>> Now that I know what you're talking about, I continue to be puzzled
>> that I *do not* see the same effect under IDL 6.4,
>> but you do.

>

>> I have to find something better to do on a cold, wet Saturday
>> arvo... ;-)

>

> Hi David and Andrew,

>

> This is remedied by removing or reducing the scale value passed to
> `xobjview`. `Xobjview` isn't calculating the `zclip` of the view correctly
> when scale is set so the most extreme z values are clipped. As to the
> mystery if why it works in 6.4 but not 7? I don't have a copy of 6.4
> with me and I can think of a million things I would rather do but If
> you're really hard up for entertainment you can do a diff on
> `idlexinscribingview__define.pro` and see if anything has changed.

>

> -Rick

>

> N 062 02.37
> E 178 22.52

> you're really hard up for entertainment you can do a diff on
> `idlexinscribingview__define.pro` and see if anything has changed.

Nah. I can't imagine it `_ever_` being cold enough or wet enough to
wanna do that either...

This is a job for the ITT lurkers.

Andrew

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [humanumbrella](#) on Mon, 21 Jul 2008 13:46:44 GMT
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Hello everyone,

Sorry I have not responded for a couple of days, I've been up in Washington DC on vacation, hehe.

Anyway, I see the clipping which David references on my machine using IDL7.0.

Here's the screen -> <http://tinyurl.com/696ro2>

Also -- for others who follow, here's some help, not with fsc_Surface in particular, but with surface plots, for a way of displaying spherical data, though the author (who had correspondence with Dr. Fanning, hehe) is experiencing a problem with a hole in the plot.

```
ang=transpose(2*!PI*findgen(64)/63)
print, ang
n=size(ang, /N_ELEMENTS )
print, n
ones=fltarr(n,1)+1
theta_a=(ang##ones)
print, size(theta_a)
;ang2=[0:.05:pi+.05]'-pi/2; (this is what lused in Matlab)
ang2=transpose(!PI*findgen(n)/(n-1)-!PI/2) ; (should be roughly
equivalent to above)
theta_e=transpose(ang2##ones)
rcart=1+cos(!pi/2-theta_e)
```

```
theta_a_1d=reform(theta_a,1,n*n)
print, size(theta_a_1d)
theta_e_1d=reform(theta_e,1,n*n)
print, size(theta_e_1d)
rcart_1d=reform(rcart,1,n*n)
print, size(rcart_1d)
sph=[theta_a_1d,theta_e_1d,rcart_1d]
```

```
rectc=cv_coord(from_sphere=sph, /to_rect)
x_1d=rectc(0,*)
y_1d=rectc(1,*)
z_1d=rectc(2,*)
x=reform(x_1d,n,n)
y=reform(y_1d,n,n)
z=reform(z_1d,n,n)
```

```
print, size(z)
```

```
isurface, z,x,y  
xplot3d, x,y,z
```

I think this is well enough to get me on my way today!

Thanks everyone!

Cheers,

--Justin

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:

Posted by [David Fanning](#) on Mon, 21 Jul 2008 14:04:23 GMT

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

humanumbrella@gmail.com writes:

- > Also -- for others who follow, here's some help, not with fsc_Surface
- > in particular, but with surface plots, for a way of displaying
- > spherical data, though the author (who had correspondence with Dr.
- > Fanning, hehe) is experiencing a problem with a hole in the plot.

I've learned quite a lot after my tip to Justin that this
"couldn't be done". :-(

Just one piece of advice, though. Put the compile option
idl2 in all your code. You are writing programs that a lot
of other people are not going to be able to compile.

```
compile_opt idl2
```

This will force you to use square brackets for array
subscripting, a practice everyone on the planet ought to
be using by now. :-)

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: Spherical Surface Plot w/ fsc_surface from David Fanning (:

Posted by [humanumbrella](#) on Mon, 21 Jul 2008 14:14:52 GMT

On Jul 21, 10:04 am, David Fanning <n...@dfanning.com> wrote:

> humanumbre...@gmail.com writes:

>> Also -- for others who follow, here's some help, not with fsc_Surface
>> in particular, but with surface plots, for a way of displaying
>> spherical data, though the author (who had correspondence with Dr.
>> Fanning, hehe) is experiencing a problem with a hole in the plot.

>

> I've learned quite a lot after my tip to Justin that this

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>

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> idl2 in all your code. You are writing programs that a lot

> of other people are not going to be able to compile.

>

> compile_opt idl2

>

> This will force you to use square brackets for array

> subscripting, a practice everyone on the planet ought to

> be using by now. :-)

>

> 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.")

> This will force you to use square brackets for array

> subscripting, a practice everyone on the planet ought to

> be using by now. :-)

I use square brackets. (: The code I pasted is code I found on the
Internets.

Cheers,

--Justin

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [David Fanning](#) on Mon, 21 Jul 2008 14:22:22 GMT

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

humanumbrella@gmail.com writes:

> I use square brackets. (: The code I pasted is code I found on the
> Internets.

Well, I can believe that! And this is surely not the
worst of it. ;-)

Cheers,

David

--

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

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

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [humanumbrella](#) on Mon, 21 Jul 2008 20:21:11 GMT

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

On Jul 21, 10:22 am, David Fanning <n...@dfanning.com> wrote:

> humanumbre...@gmail.com writes:

>> I use square brackets. (: The code I pasted is code I found on the

>> Internets.

>

> Well, I can believe that! And this is surely not the

> worst of it. ;-)

>

> Cheers,

>

> David

> --

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

Thanks Rick for that e-mail about the clipping! (:

Here's a video of my animation of FSC_surface as well as what I will
eventually include with fsc_surface, that is the spherical surface
polygon. It's 10MB though, so be patient. (:

Check it out --> <http://csserver04.furman.edu/Research/ResearchBlogs/justin/interp-beta.htm>

Cheers,

--Justin

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [David Fanning](#) on Mon, 21 Jul 2008 20:31:19 GMT
[View Forum Message](#) <> [Reply to Message](#)

Justin writes:

> Here's a video of my animation of FSC_surface as well as what I will
> eventually include with fsc_surface, that is the spherical surface
> polygon. It's 10MB though, so be patient. (:
> Check it out --> [http://csserver04.furman.edu/Research/ResearchBlogs/justin=
> /interp-beta.htm](http://csserver04.furman.edu/Research/ResearchBlogs/justin=/interp-beta.htm)

Wow. How about writing an article for my web page on
how to create a video like that? :-)

Cheers,

David

--

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

Subject: Re: Spherical Surface Plot w/ fsc_surface from David Fanning (:
Posted by [humanumbrella](#) on Mon, 21 Jul 2008 20:35:44 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Jul 21, 4:31 pm, David Fanning <n...@dfanning.com> wrote:

> Justin writes:
>> Here's a video of my animation of FSC_surface as well as what I will
>> eventually include with fsc_surface, that is the spherical surface
>> polygon. It's 10MB though, so be patient. (:
>> Check it out -->[http://csserver04.furman.edu/Research/ResearchBlogs/justin=
>> /interp-beta.htm](http://csserver04.furman.edu/Research/ResearchBlogs/justin=/interp-beta.htm)
>
> Wow. How about writing an article for my web page on
> how to create a video like that? :-)
>
> 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.")

It's really easy -- there's a free program called "Wink" by "Debugmode" -- It's open source and it allows you to create a custom box for recording -- it is very powerful, but I only use the basics.
(: Record (via taking screenshots at a set frames/sec), then export to flash -- it will even add that little preloader on there for you!
(: Check it out. <http://www.debugmode.com/wink/>

Cheers!
--Justin

Subject: Re: Spherical surface plot
Posted by [David Fanning](#) on Sat, 02 May 2009 13:52:20 GMT
[View Forum Message](#) <> [Reply to Message](#)

Mrunmayee writes:

```
> I have been trying to create a spherical surface plot and have
> partially succeeded. Here is what I did to create a surface:
> theta3 = findgen(361)/2. * !pi/180.      ; 0<= theta <= !pi
> phi3 = findgen(361) * !pi/180.          ; 0<= phi <= 2*!pi
> x3 = sin(theta3) # cos(phi3)
> y3 = sin(theta3) # sin(phi3)
> sph = sqrt( (1. - x3^2 - y3^2) > 0.)      ; This is to avoid
> "floating illegal operand" error.
> sph1 = sph                               ; Just for comparison
> with sph, to be modified as follows
> sph2 = sph[181:360,*]                    ; Array containing
> elements for !pi/2 < theta <= !pi i.e. southern hemisphere
> sph1[181:360,*] = -sph2                  ; Since sqrt will just take
> +ve root, this inverts and creates southern hemisphere.
>
> Success: fsc_surface, sph1, x3, y3      ; Glorious spherical surface
>          surface, sph1, x3, y3          ; Rather pathetic
> rendering of surface but still a spherical surface
> Failure: shade_surf, sph1, x3, y3       ; Nothing viewd. NOTHING AT
> ALL. Whether device, decomposed=0/1 doesn't matter.
>
> Anyone knows what's happening?
```

I don't know what is happening, but the result doesn't surprise me much. SURFACE and SHADE_SURF use what is technically referred to as a "two and a half D" surface rendering engine. All direct graphics commands use this 2.5D way of rendering 3D objects. Object graphics, which is what FSC_SURFACE is using, uses a true 3D rendering engine. I would have expected it to be better at rendering

this surface.

I think the bottom line is that if you *really* want to do 3D things, you will have to do them in object graphics if you want "modern" (as opposed to state of the art in the 1970s) 3D results.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Subject: Re: Spherical surface plot
Posted by [Mrunmayee](#) on Sun, 03 May 2009 12:50:09 GMT
[View Forum Message](#) <> [Reply to Message](#)

On May 2, 6:52 pm, David Fanning <n...@dfanning.com> wrote:

> Mrunmayee writes:

>> I have been trying to create a spherical surface plot and have
>> partially succeeded. Here is what I did to create a surface:

>> theta3 = findgen(361)/2. * !pi/180. ; 0<= theta <= !pi

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 > engine. I would have expected it to be better at rendering
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 > I think the bottom line is that if you *really* want to
 > do 3D things, you will have to do them in object graphics
 > if you want "modern" (as opposed to state of the art in the
 > 1970s) 3D results.
 >
 > 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.")

Oh man... I have never ventured into objects in IDL. Not much idea
 about 2.5D and 3D rendering. So, when you use OBJ_NEW("IDLGrSurface"),
 it uses 3D rendering?

But as to what is happening here. See if doing following shines any
 new light.

;Continuing variables from above:

```
;-----
sphn = sph[0:180, *] & xn = x3[0:180, *] & yn = y3[0:180, *] ;North
hemisphere and coordinates
sphs = -sph[181:360, *] & xs = x3[181:360, *] & ys = [181:360, *] ;
South hemisphere and coords
```

```
surface, sph1, x3, y3, ax=0, az=0 ; This projection is uber-
horrible. In this, whole eastern hemisphere is missing.
surface, sphn, xn, yn, ax=0, az=0 ; Nothing of the sort.
surface, sphs, xs, ys, ax=0, az=0 ; Again, nothing missing!
```

Thanks for replying.

Gauri.

Subject: Re: Spherical surface plot
Posted by [David Fanning](#) on Sun, 03 May 2009 14:00:54 GMT
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Mrunmayee writes:

> Oh man... I have never ventured into objects in IDL. Not much idea
> about 2.5D and 3D rendering. So, when you use OBJ_NEW("IDLGrSurface"),
> it uses 3D rendering?
>
> But as to what is happening here. See if doing following shines any
> new light.

Well, it probably confirms that the surface algorithm used in the direct graphics surface command was state of the art 30 years ago. Personally, I don't think it was designed to display the kind of surface you appear determined to display. Time to learn about object graphics, I'd say. :-)

Cheers,

David

P.S. Have you tried the iSurface tool? No one will be able to help you program the darn thing, but maybe it will do your display correctly.

--

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: Spherical surface plot
Posted by [Mrunmayee](#) on Sun, 03 May 2009 17:44:08 GMT
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On May 3, 7:00 pm, David Fanning <n...@dfanning.com> wrote:

> Mrunmayee writes:
>> Oh man... I have never ventured into objects in IDL. Not much idea
>> about 2.5D and 3D rendering. So, when you use OBJ_NEW("IDLGrSurface"),
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>> But as to what is happening here. See if doing following shines any
>> new light.
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> used in the direct graphics surface command was state
> of the art 30 years ago. Personally, I don't think it
> was designed to display the kind of surface you appear
> determined to display. Time to learn about object
> graphics, I'd say. :-)
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> Cheers,
>
> David
>
> P.S. Have you tried the iSurface tool? No one will be
> able to help you program the darn thing, but maybe it
> will do your display correctly.
>
> --
> 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.")

If I am not beating the dead horse here, what *kind* of surface am I trying to display? I thought I was trying to do a straight forward surface plot!

Actually, I haven't tried to iSurface, forgot about it. I don't like to use it, because it invariably crashes my x-server. Nonetheless, I will see what it does.

Subject: Re: Spherical surface plot
Posted by [David Fanning](#) on Sun, 03 May 2009 22:20:17 GMT
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Mrunmayee writes:

> If I am not beating the dead horse here, what *kind* of surface am I
> trying to display? I thought I was trying to do a straight forward
> surface plot!

I think you are trying to display a 3D surface. The IDL Surface command is designed to display a 2D surface in a 3D representation (I.e, a 2.5D surface). You might have more luck in direct graphics if you represented your 3D surface as a volume and tried to display an isosurface of that. (If that is what you want, it is not clear to me.)

> Actually, I haven't tried to iSurface, forgot about it. I don't like

> to use it, because it invariably crashes my x-server.

Yeah, well, there is that. :^)

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: Spherical surface plot

Posted by [Mrunmayee](#) on Mon, 04 May 2009 03:42:03 GMT

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On May 4, 3:20 am, David Fanning <n...@dfanning.com> wrote:

> Mrunmayee writes:

>> If I am not beating the dead horse here, what *kind* of surface am I

>> trying to display? I thought I was trying to do a straight forward

>> surface plot!

>

> I think you are trying to display a 3D surface. The IDL Surface

> command is designed to display a 2D surface in a 3D representation

> (I.e, a 2.5D surface). You might have more luck in direct graphics

> if you represented your 3D surface as a volume and tried to display

> an isosurface of that. (If that is what you want, it is not clear

> to me.)

>

>> Actually, I haven't tried to iSurface, forgot about it. I don't like

>> to use it, because it invariably crashes my x-server.

>

> Yeah, well, there is that. :^)

>

> 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.")

How is it a 3D surface? It's only specified by \theta and \phi

coordinates, so shouldn't it be 2D?

Will see what happens with displaying it as an isosurface.

-Gauri.
