## Subject: Re: polar_cgContour?
Posted by David Fanning on Wed, 24 Aug 2011 21:10:17 GMT
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Matteo writes:

> I see many threads regarding polar contour filled plots, but none
> occurring after the release of the great Coyote GS. It would be of
> great help to know from David if something like polar_cgContour is in
> the pipeline, or cgContour should be used instead after a coordinate
> transformation from Cartesian into z, r, theta. Or is the use of
> MAP_SET still the best option? The goal is to be able to use a whole
> colortable (255 colors) to contour a 2d-array between preset min/max
> value, and having a matching colorbar.

Humm. Do you have some data?

I've been looking through examples of filled
polar contour plots for a few minutes. I'm not
sure which is the best way to approach this.
I have made some examples of this before (one
is on the back cover of my book!), but I made
that one with a map projection.

Anyway, if I had a good data set, I might
give it a try. :-)

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: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 03:15:25 GMT
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David Fanning writes:

> Humm. Do you have some data?
>

> I've been looking through examples of filled
> polar contour plots for a few minutes. I'm not
> sure which is the best way to approach this.
> I have made some examples of this before (one
> is on the back cover of my book!), but I made
> that one with a map projection.
>
> Anyway, if I had a good data set, I might
> give it a try. :-)

OK, I put a little proof-of-concept program,
named PolarContour here:

   http://www.idlcoyote.com/misc/polarcontour.pro

Is that the sort of thing you have in mind? I put
the 2D data with contours overlaid in a separate
window, just to be sure I was doing this correctly.

Just call it like this to run it with demo data:

   IDL> PolarContour

Cheers,

David


--
David Fanning, Ph.D.
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---

Subject: Re: polar_cgContour?
Posted by Matteo on Thu, 25 Aug 2011 21:28:28 GMT
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David,

thank you very much for your kind answer. I see we're set in a very
good direction. I re-sent you an email to you coyote account,
attaching an example of what I desired to obtain and an IDL saveset
with the data. I hope you can retrieve it. I'm puzzled about one
specific thing: how do I use a continuous color table with all
available colors, to display my "z" data WITHIN A PRE-SELECTED RANGE?

Ex.: assume z is bound between -1 and 1, but I want to use all 255
colors to display the points between 0. and 0.5 and showing all the
rest as "saturated".

m

---

## Subject: Re: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 21:38:58 GMT
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Matteo writes:

> thank you very much for your kind answer. I see we're set in a very
> good direction. I re-sent you an email to you coyote account,
> attaching an example of what I desired to obtain and an IDL saveset
> with the data. I hope you can retrieve it.

I haven't seen it yet. Maybe it will arrive shortly.

> I'm puzzled about one
> specific thing: how do I use a continuous color table with all
> available colors, to display my "z" data WITHIN A PRE-SELECTED RANGE?
> Ex.: assume z is bound between -1 and 1, but I want to use all 255
> colors to display the points between 0. and 0.5 and showing all the
> rest as "saturated".

You would do this by selecting the appropriate
contour levels and by loading the appropriate
colors to display those levels in. :-)

But, I would suggest you are not looking for a filled
contour plot so much as you are looking for an image.

Cheers,

David

--
David Fanning, Ph.D.
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---

## Subject: Re: polar_cgContour?

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Posted by Matteo on Thu, 25 Aug 2011 21:49:32 GMT

David,

I managed to run your polarcontour routine. I see that you're
basically laying the 2D-array as a blanket, centered, over the "North
Pole". What I really meant is to use the x-axis (e.g, [0,90]) as the
polar angle, the y-axis ([0,180]) as the azimuthal angle. The
horizontal line going through the center of the square 2D-array should
become the vertical line in the (semi-)circular polar plot (90 deg of
azimuth). In other words, the 2D-array gets "opened" like a fan while
the left side of the square (polar angle=0 deg) collapses into a point
(the origin). These things should be clear in the figure I attached in
my email.

'best,
m

## Subject: Re: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 21:59:57 GMT

Matteo writes:

> These things should be clear in the figure I attached in
> my email.

Humm. Haven't got the e-mail. Even in my spam folder.
Did you send it to "david" at the domain name?

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: polar_cgContour?
Posted by Matteo on Thu, 25 Aug 2011 22:09:05 GMT

Weird...yes. david at idlcoyote dot com.
Can you try and send an email to catullovr at hotmail dot com and I'll
reply from there?

---

Subject: Re: polar_cgContour?
Posted by Matteo on Thu, 25 Aug 2011 22:32:23 GMT

got your email, and replied to it from two different accounts of
mine...


On Aug 25, 6:09 pm, Matteo <apsnoteta...@gmail.com> wrote:
> Weird...yes. david at idlcoyote dot com.
> Can you try and send an email to catullovr at hotmail dot com and I'll
> reply from there?

---

Subject: Re: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 22:51:56 GMT

Matteo writes:

> got your email, and replied to it from two different accounts of
> mine...

Seriously!? I haven't gotten a thing. (I am getting
e-mail from others.) Nothing in my spam filter, either.
Too weird. Must mean this is an impossible task and
the Universe don't want me wasting my time on it. :-)

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: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 22:57:08 GMT

David Fanning writes:

> Seriously!? I haven't gotten a thing. (I am getting
> e-mail from others.) Nothing in my spam filter, either.
> Too weird. Must mean this is an impossible task and
> the Universe don't want me wasting my time on it. :-)

Oh, hang on. They went DIRECTLY into my spam trash folder,
instead of getting placed in the "captured" folder. I guess
because they had the very highest level of "spaminess", or
whatever it is they call it. Anyway, a 10+ on the spam-o-meter.

Can't wait to see what ELSE you included in this e-mail!!

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: polar_cgContour?
Posted by Matteo on Thu, 25 Aug 2011 23:15:31 GMT

David,

apologies for what's happening, but I must admit I'd instead give a 0-
to the spam-o-meter.
I've sent my two emails through a NASA secured internet connection,
one from my hotmail account, the other from my NASA account.
The email(s) contain the following attachments: IDL saveset with
theta,r,z (psi.sav), and a jpg image of my results so far
(Slide13.jpg).

Hopefully this will help,
m

## Subject: Re: polar_cgContour?
Posted by David Fanning on Thu, 25 Aug 2011 23:31:12 GMT
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Matteo writes:

> apologies for what's happening, but I must admit I'd instead give a 0-
> to the spam-o-meter.
> I've sent my two emails through a NASA secured internet connection,
> one from my hotmail account, the other from my NASA account.
> The email(s) contain the following attachments: IDL saveset with
> theta,r,z (psi.sav), and a jpg image of my results so far
> (Slide13.jpg).

The saveset I got has psi, azi and va. I tried this
with polar_plot, but I don't get anything like the
pictures in the slide. :-(

Can you give me more clues about what you are
doing?

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: polar_cgContour?
Posted by Matteo on Fri, 26 Aug 2011 21:21:56 GMT
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the n-th email I sent should have hopefully furnished you all the
explanations needed...let me know otherwise.