Subject: (cG) windbarb problem
Posted by natha on Tue, 25 Mar 2014 13:09:11 GMT
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Hi all,

I am using the Windbarb program and I am having the following problems:

1) The angle of the barb is not properly represented
2) The position of the barb is wrong

I have reproduced both errors in the following example

```
device, dec=0

!p.background=255
!p.color=0

limit=[20.,-128.,53.,-65.]

map_set, 0, 0, limit=limit, position=[0,0,1,1], /noborder, /isotropic, /mercator

map_continents, /countries, /coasts

windbarb, [-110], [35], [50.], [45.], length=0.2, color=[0,0,0]

plots, [-110], [35], psym=1
```

I was expecting the barb to be oriented 45 deg and it is not the case... Also, I was expecting the barb to start at the exact position -110, 35.

Thank you in advance for your help,
nata

Subject: Re: (cG) windbarb problem
Posted by David Fanning on Tue, 25 Mar 2014 13:23:24 GMT
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nata writes:

> I am using the Windbarb program and I am having the following problems:
>
> 1) The angle of the barb is not properly represented
> 2) The position of the barb is wrong
>
> I have reproduced both errors in the following example
>

>  device, dec=0
>
>  !p.background=255
>  !p.color=0
>
>  limit=[20.,-128.,53.,-65.]
>
>  map_set, 0, 0, limit=limit, position=[0,0,1,1], /noborder, /isotropic, /mercator
>
>  map_continents, /countries, /coasts
>
>  windbarb, [-110], [35], [50.], [45.], length=0.2, color=[0,0,0]
>
>  plots, [-110], [35], psym=1
>
> I was expecting the barb to be oriented 45 deg and it is not the case... Also, I was expecting the barb to start at the exact position -110, 35.
>
> Thank you in advance for your help,

Yes, there are probably all *kinds* of things wrong with that old
program. But, no time to work on it at the moment. Sorry.

It needs to be completely rewritten, I would think.

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: (cG) windbarb problem
Posted by natha on Tue, 25 Mar 2014 13:26:06 GMT
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OK. I would suggest to not distribute programs that do not work properly.
Is there an alternative? I am also having problems with velovect

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Subject: Re: (cG) windbarb problem

Posted by on Tue, 25 Mar 2014 13:32:14 GMT
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Den tisdagen den 25:e mars 2014 kl. 14:26:06 UTC+1 skrev nata:
> OK. I would suggest to not distribute programs that do not work properly.
>
> Is there an alternative?

Google finds several different files with that name, as well as wind_barb.pro.

/Mats

---

Subject: Re: (cG) windbarb problem
Posted by David Fanning on Tue, 25 Mar 2014 13:39:06 GMT
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nata writes:

> OK. I would suggest to not distribute programs that do not work properly.
> Is there an alternative? I am also having problems with velovect

Yes, I'm looking to hire five more people to help me manage my business.

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: (cG) windbarb problem
Posted by natha on Tue, 25 Mar 2014 13:41:04 GMT
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I fixed the routine by using the CLIP keyword and by modifying the lines 245 and 246
x1 = clip[0] > (xx[j] + sindr * sr) < clip[2]
y1 = clip[1] > (yy[j] + cosdr * sr * aspect) < clip[3]:
by
x1 = clip[0] > (xx[j]) < clip[2]
y1 = clip[1] > (yy[j]) < clip[3]

Now everything is working properly

```
 device, dec=0

!p.background=255
!p.color=0

limit=[20.,-128.,53.,-65.]

dim=[800,800]

window, 0, xsize=dim[0], ysize=dim[1]

map_set, 0, 0, limit=limit, position=[0,0,1,1], /noborder, /isotropic, /mercator

map_continents, /countries, /coasts

uv_box=!map.uv_box
aspect_ratio=(uv_box[2]-uv_box[0])/(uv_box[3]-uv_box[1])

data=intarr(100,100)
 temp=map_image(data,xstart,ystart,xsize,ysize,latmin=limit[0 ],latmax=limit[2],$
  lonmin=limit[1],lonmax=limit[3],/compress)

 clip=[xstart,ystart,xstart+xsize,ystart+ysize]/float([dim,di m])

windbarb, [-110], [35], [50.], [45.], length=0.3, color=[0,0,0], clip=clip, aspect=1.

plots, [-110], [35], psym=1
```

---

Subject: Re: (cG) windbarb problem
Posted by David Fanning on Tue, 25 Mar 2014 13:55:27 GMT
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nata writes:

> I fixed the routine by using the CLIP keyword and by modifying the lines 245 and 246
> x1 = clip[0] > (xx[j] + sindr * sr) < clip[2]
> y1 = clip[1] > (yy[j] + cosdr * sr * aspect) < clip[3]:
> by
> x1 = clip[0] > (xx[j]) < clip[2]
> y1 = clip[1] > (yy[j]) < clip[3]
>
> Now everything is working properly

You can also find a hardcoded "60" on line 216. If you change that to 45
you may like the results more.

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: (cG) windbarb problem
Posted by natha on Tue, 25 Mar 2014 14:40:43 GMT
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I prefer the 60

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