
Subject: Re: overlaying wind vectors on a map
Posted by [R.G.Stockwell](#) on Tue, 23 Mar 2010 19:03:18 GMT
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"slippy133" <slippy133@yahoo.com> wrote in message
news:c2833c42-8235-44fc-9110-528cd16ccd0c@h35g2000pri.google groups.com...

> Hi,

...

> I have also used ivector, but that doesn't seem to overlay on current

> maps either.

>

> Is there a simple way to do this in IDL that I am simply unaware of?

I wrote a routine to do this. Here is the relevant snippet,

; here, i have zonal wind in "zon" and meridional wind in "mer"

```
wgood = where(finite(zon) eq 1, wgoodcount)
```

```
if wgoodcount eq 0 then return
```

```
arrowtail_lat = zon*!values.f_nan ; same as zon but full of NANs
```

```
arrowtail_lon = arrowtail_lat
```

```
; lon is col
```

```
; lat is row
```

```
; Decimate arrow points ; arrow at each point may be too much
```

```
decimating_index = lindgen(wgoodcount/decfactor)*decfactor
```

```
wgood = wgood(decimating_index) ; arrow at every 'n'th data point
```

```
arrowtail_lat_index = wgood/nlon
```

```
arrowtail_lon_index = wgood mod nlon
```

```
arrowtail_lat(arrowtail_lon_index,arrowtail_lat_index) =
```

```
lats(arrowtail_lat_index)
```

```
arrowtail_lon(arrowtail_lon_index,arrowtail_lat_index)=
```

```
lons(arrowtail_lon_index)
```

```
arrowhead_lat = arrowtail_lat + mer*mps_to_latlong_copy
```

```
arrowhead_lon = arrowtail_lon + zon*mps_to_latlong_copy
```

```
if n_elements(mapStruct) gt 0 then begin
```

```
    resulttail =
```

```
    MAP_PROJ_FORWARD(arrowtail_lon,arrowtail_lat,map_structure = mapstruct)
```

```
    resulthead =
```

```
    MAP_PROJ_FORWARD(arrowhead_lon,arrowhead_lat,map_structure = mapstruct)
```

```

arrowtail_lon = resulttail[0,*]
arrowtail_lat = resulttail[1,*]
arrowhead_lon = resulthead[0,*]
arrowhead_lat = resulthead[1,*]

; different map struct used, so conver (in uv coords here)
wbadwrap = where( abs(arrowtail_lon - arrowhead_lon) gt
19848285L, wbadwrapcount, complement=badwrapcomp)
; remove these
arrowtail_lon = arrowtail_lon(badwrapcomp)
arrowtail_lat = arrowtail_lat(badwrapcomp)
arrowhead_lon = arrowhead_lon(badwrapcomp)
arrowhead_lat = arrowhead_lat(badwrapcomp)

for i = 0, n_elements(arrowtail_lon)-1 do begin
arrow,arrowtail_lon(i),arrowtail_lat(i),$
arrowhead_lon(i),arrowhead_lat(i),data=1,color=arrowcolor,hs ize=newhsize,solid=solid
endfor
endif else begin
; data in lat lon coords

arrow,arrowtail_lon(*),arrowtail_lat(*),$
arrowhead_lon(*),arrowhead_lat(*),data=1,color=arrowcolor,hs ize=newhsize,solid=solid
endelse

```

cheers,
bob
