
Subject: Re: polygon intersection routine in IDL
Posted by [mmeron](#) on Wed, 14 Feb 2007 10:21:58 GMT
[View Forum Message](#) <> [Reply to Message](#)

In article <1171433274.480043.121140@q2g2000cwa.googlegroups.com>, "Weihua FANG" <weihua.fang@gmail.com> writes:

> Hi, dear mati,

>

> I tested your function by 2 samples. One returned the overlap polygon
> successfully. but the second one failed. is there anything wrong in my
> code?

>

> thank you in advance.

>

> pro test_polygon_overlap

>

>

> shape1 =3D fltarr(2,4)

> shape2 =3D fltarr(2,4)

> shape1[0,0] =3D 0.1

> shape1[0,1] =3D 1.1

> shape1[0,2] =3D 1.2

> shape1[0,3] =3D 0.2

> shape1[1,0] =3D 0.2

> shape1[1,1] =3D 0.15

> shape1[1,2] =3D 1.1

> shape1[1,3] =3D 1.2

>

> shape2[0,0] =3D 0.5

> shape2[0,1] =3D 1.5

> shape2[0,2] =3D 1.6

> shape2[0,3] =3D 0.4

> shape2[1,0] =3D 0.5

> shape2[1,1] =3D 0.6

> shape2[1,2] =3D 1.7

> shape2[1,3] =3D 1.5

>

> shape3 =3D shape_overlap (shape1, shape2, exists =3D exs)

>

> print, exs

>

>

> shape1 =3D fltarr(2,17)

> shape1 [*,0] =3D [116.44991,41.441910]

> shape1 [*,1] =3D [116.57357,41.374821]

> shape1 [*,2] =3D [116.64723,41.312994]

> shape1 [*,3] =3D [116.57488,41.002544]

> shape1 [*,4] =3D [116.36967,40.928878]

```

> shape1 [* ,5] =3D [116.16840,40.984128]
> shape1 [* ,6] =3D [116.21576,41.053847]
> shape1 [* ,7] =3D [116.06185,41.099889]
> shape1 [* ,8] =3D [116.10263,41.168293]
> shape1 [* ,9] =3D [116.13683,41.214334]
> shape1 [* ,10] =3D [116.16577,41.264322]
> shape1 [* ,11] =3D [116.18156,41.319572]
> shape1 [* ,12] =3D [116.22891,41.344565]
> shape1 [* ,13] =3D [116.31442,41.357720]
> shape1 [* ,14] =3D [116.29337,41.387976]
> shape1 [* ,15] =3D [116.34468,41.422178]
> shape1 [* ,16] =3D [116.44991,41.441910]
>
> shape2 =3D fltarr(2,6)
> shape2 [* ,0] =3D [116.21839,41.528731]
> shape2 [* ,1] =3D [116.61698,41.524784]
> shape2 [* ,2] =3D [116.72748,41.141984]
> shape2 [* ,3] =3D [116.30916,41.203810]
> shape2 [* ,4] =3D [116.13552,41.289316]
> shape2 [* ,5] =3D [116.21839,41.528731]
>
> xrange =3D [116.06185 ,116.72748]
> yrange =3D [40.928879 ,41.528732]
>
> plot, shape1[0,*], shape1[1,*], xrange =3D xrange , yrange =3D yrange
> oplot, shape2[0,*], shape2[1,*]
>
> shape3=3D shape_overlap (shape1, shape2, exists =3D exs)
>
> print, exs
>
>
> end
>

```

Well, thank you. I didn't use this routine for nearly a decade,
 didn't notice that it has a bug. OK, go to line 72 of the routine,
 the one which has a statement starting with

```
if Shape_area....
```

And replace it with

```
if Shape_area(sec) lt 0 then sec = reverse(sec,2)
```

Should work now, let me know if it doesn't

Mati Meron | "When you argue with a fool,
 meron@cars.uchicago.edu | chances are he is doing just the same"
